T0hT90' 6h9T8860

FIGURE 1

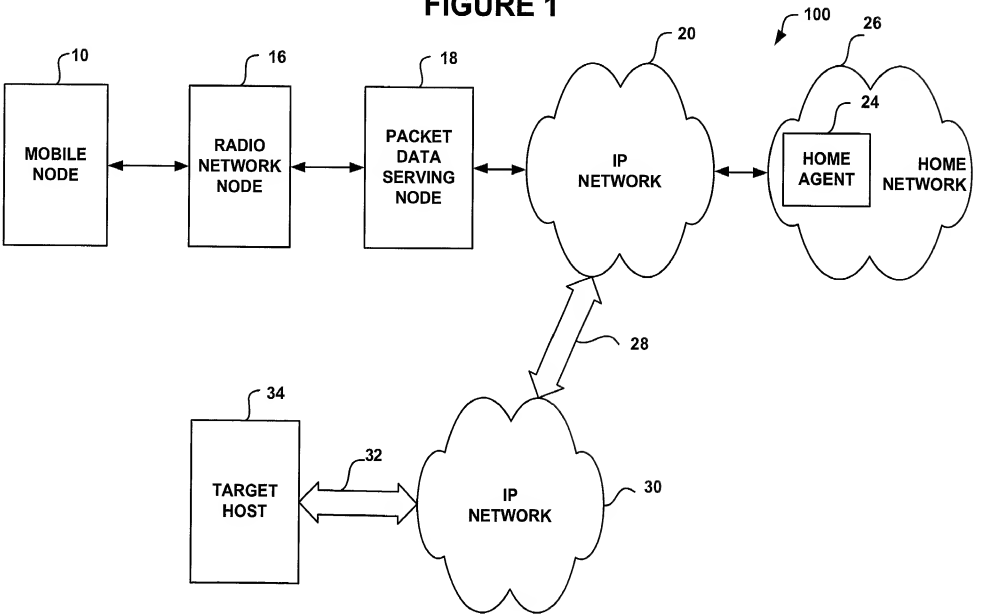

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FIGURE 2

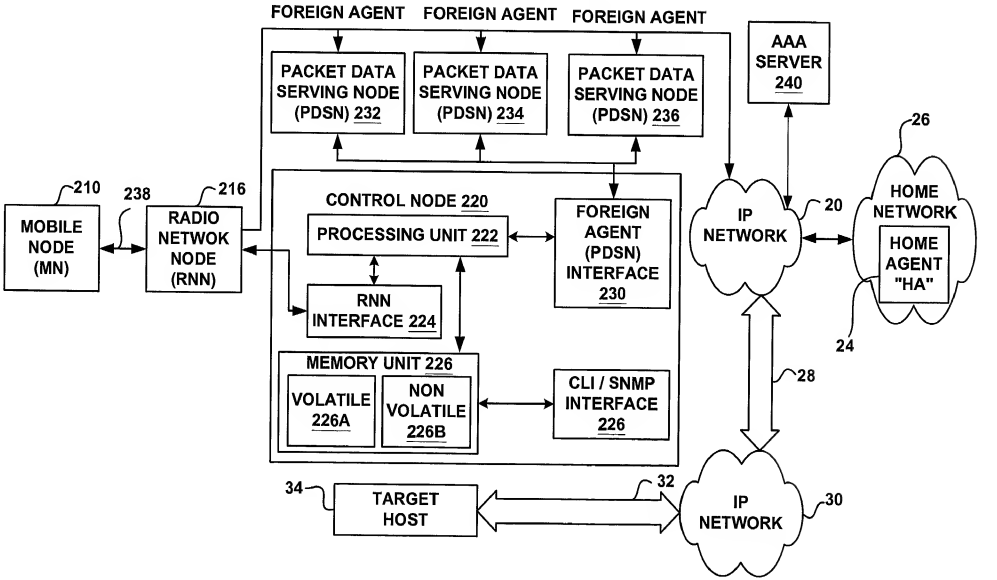
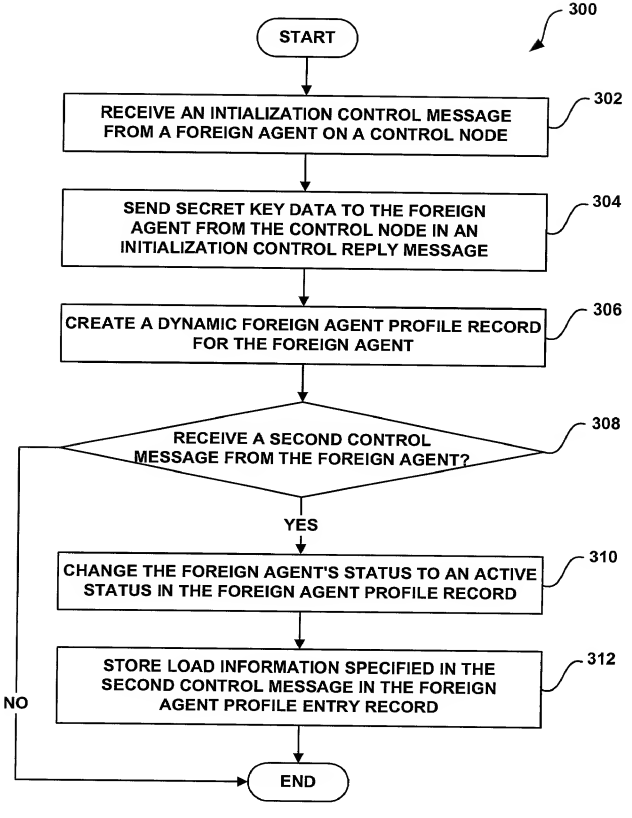


FIGURE 3


300
START
RECEIVE AN INTIALIZATION CONTROL MESSAGE FROM A FOREIGN AGENT ON A CONTROL NODE
302
SEND SECRET KEY DATA TO THE FOREIGN AGENT FROM THE CONTROL NODE IN AN INITIALIZATION CONTROL REPLY MESSAGE
304
CREATE A DYNAMIC FOREIGN AGENT PROFILE RECORD FOR THE FOREIGN AGENT
306
RECEIVE A SECOND CONTROL MESSAGE FROM THE FOREIGN AGENT?
308
YES
NO
CHANGE THE FOREIGN AGENT'S STATUS TO AN ACTIVE STATUS IN THE FOREIGN AGENT PROFILE RECORD
310
STORE LOAD INFORMATION SPECIFIED IN THE SECOND CONTROL MESSAGE IN THE FOREIGN AGENT PROFILE ENTRY RECORD
312
END

TOHT90* 6H9T8860

FIGURE 4

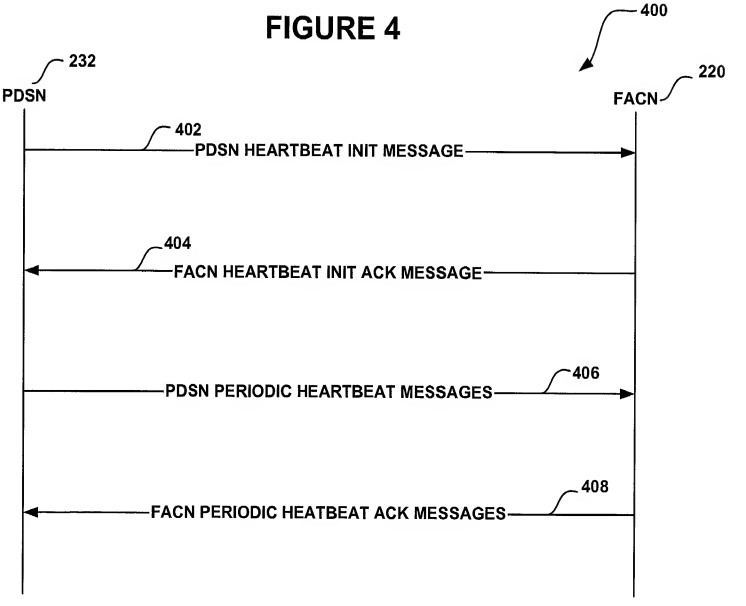


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FIGURE 5

IP HEADER 502		
UDP HEADER 504		
TYPE 506	RESERVED 508	LENGTH 510
HEARTBEAT INTERVAL 512		RESERVED 514
FOREIGN AGENT ADDRESS 516		
SUBTYPE CALL LOAD 518	LENGTH 520	FOREIGN AGENT CALL LOAD 522
SUBTYPE CPU USAGE 524	LENGTH 526	FOREIGN AGENT CPU USAGE 528
SUBTYPE MEMORY USAGE 530	LENGTH 532	FOREIGN AGENT MEMORY USAGE 534
FH AUTH TYPE 536	LENGTH 538	SPI 540
SPI 542		AUTHENTICATOR... 544
AUTHENTICATOR...		

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FIGURE 6

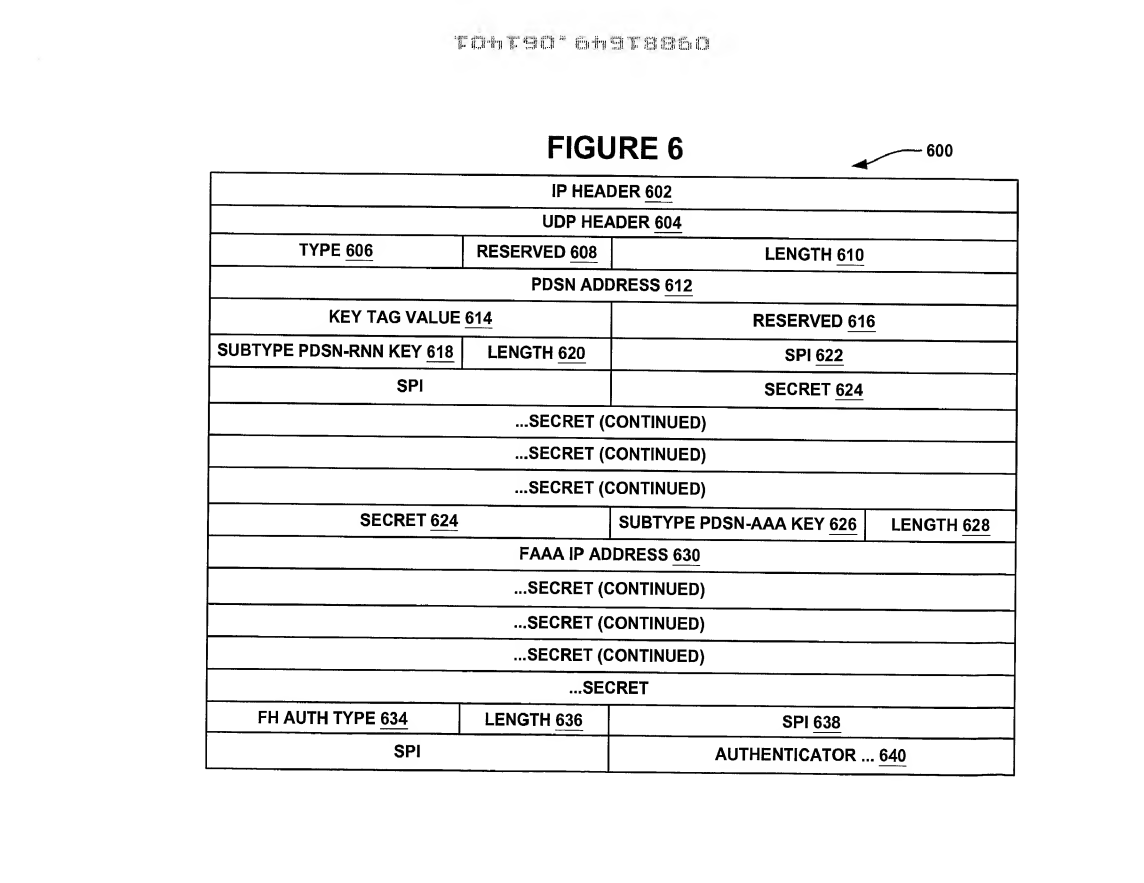

FIGURE 7

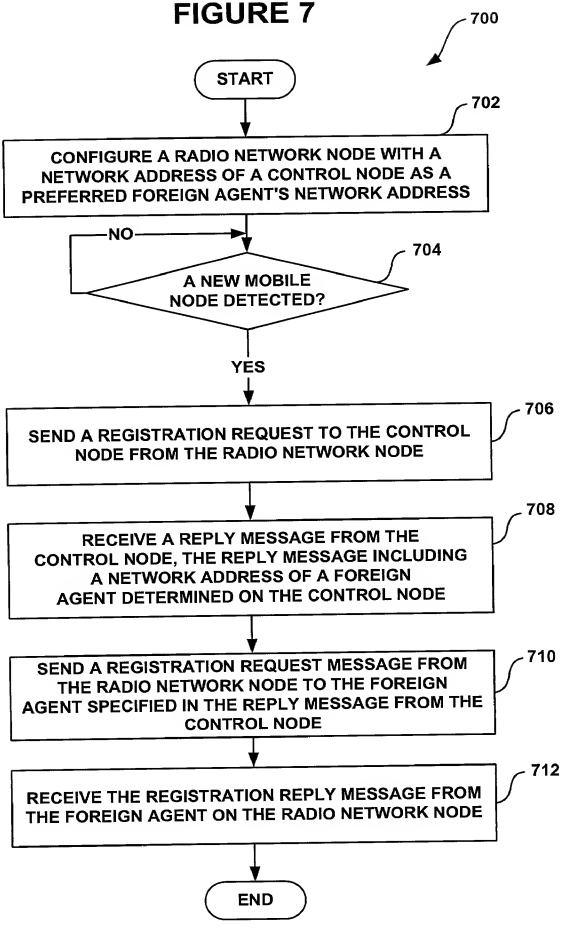

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FIGURE 8A

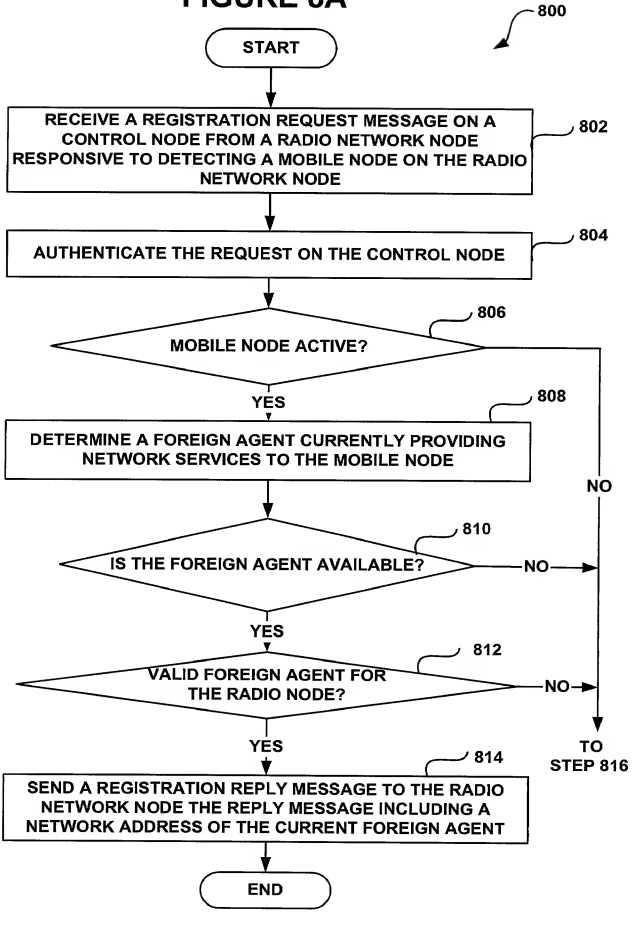
800
START
RECEIVE A REGISTRATION REQUEST MESSAGE ON A CONTROL NODE FROM A RADIO NETWORK NODE RESPONSIVE TO DETECTING A MOBILE NODE ON THE RADIO NETWORK NODE
802
AUTHENTICATE THE REQUEST ON THE CONTROL NODE
804
MOBILE NODE ACTIVE?
806
YES
NO
DETERMINE A FOREIGN AGENT CURRENTLY PROVIDING NETWORK SERVICES TO THE MOBILE NODE
808
IS THE FOREIGN AGENT AVAILABLE?
810
NO
YES
VALID FOREIGN AGENT FOR THE RADIO NODE?
812
NO
YES
TO STEP 816
SEND A REGISTRATION REPLY MESSAGE TO THE RADIO NETWORK NODE THE REPLY MESSAGE INCLUDING A NETWORK ADDRESS OF THE CURRENT FOREIGN AGENT
814
END

FIGURE 8B

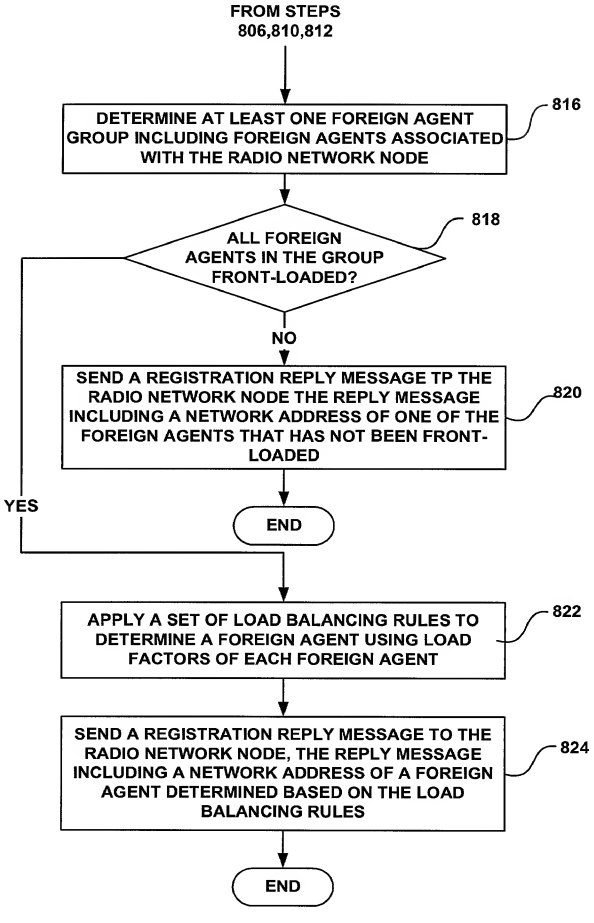
FROM STEPS 806,810,812
DETERMINE AT LEAST ONE FOREIGN AGENT GROUP INCLUDING FOREIGN AGENTS ASSOCIATED WITH THE RADIO NETWORK NODE
816
ALL FOREIGN AGENTS IN THE GROUP FRONT-LOADED?
818
NO
YES
SEND A REGISTRATION REPLY MESSAGE TP THE RADIO NETWORK NODE THE REPLY MESSAGE INCLUDING A NETWORK ADDRESS OF ONE OF THE FOREIGN AGENTS THAT HAS NOT BEEN FRONT-LOADED
820
END
APPLY A SET OF LOAD BALANCING RULES TO DETERMINE A FOREIGN AGENT USING LOAD FACTORS OF EACH FOREIGN AGENT
822
SEND A REGISTRATION REPLY MESSAGE TO THE RADIO NETWORK NODE, THE REPLY MESSAGE INCLUDING A NETWORK ADDRESS OF A FOREIGN AGENT DETERMINED BASED ON THE LOAD BALANCING RULES
824
END

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FIGURE 9

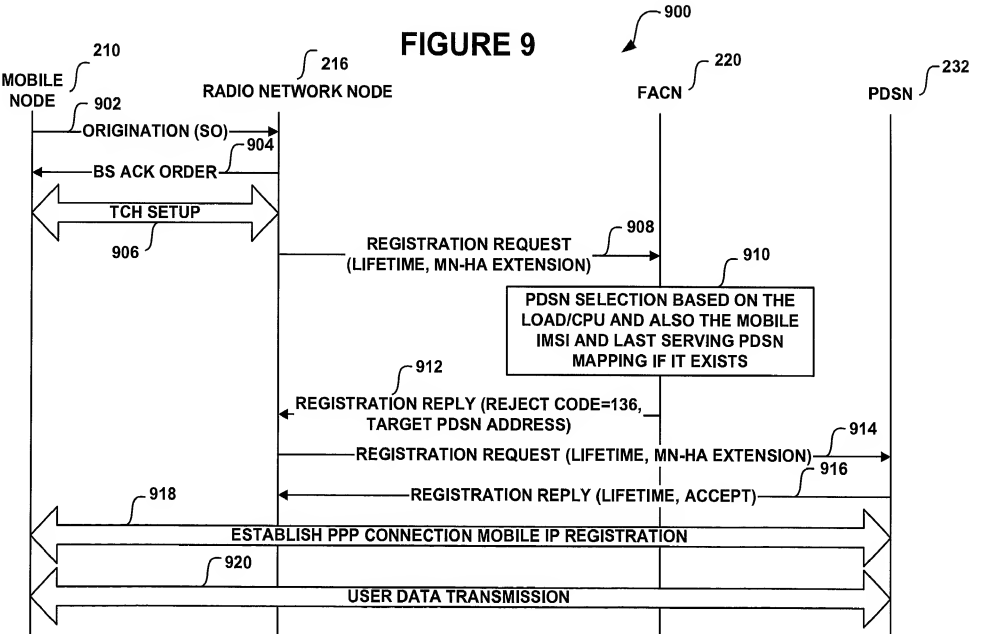

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FIGURE 10A

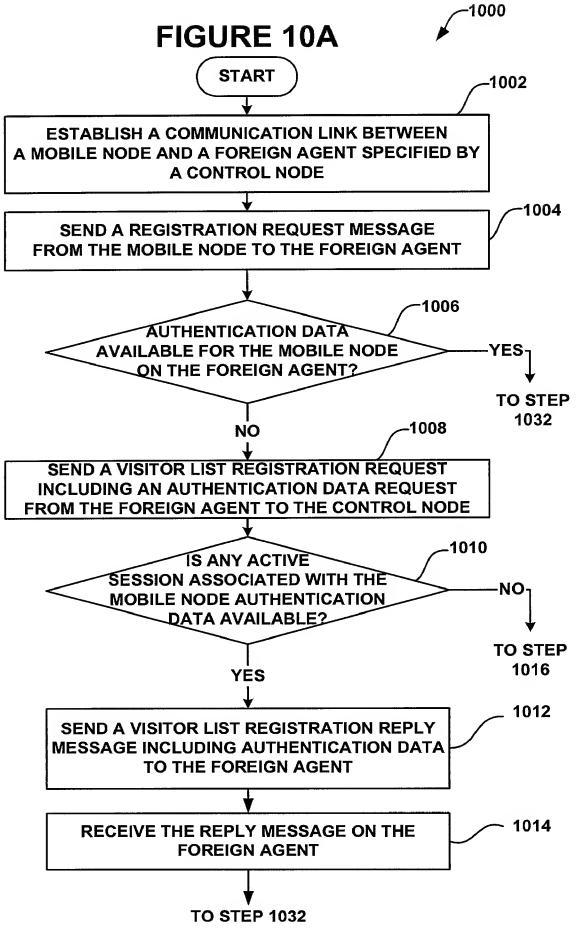

FIGURE 10B

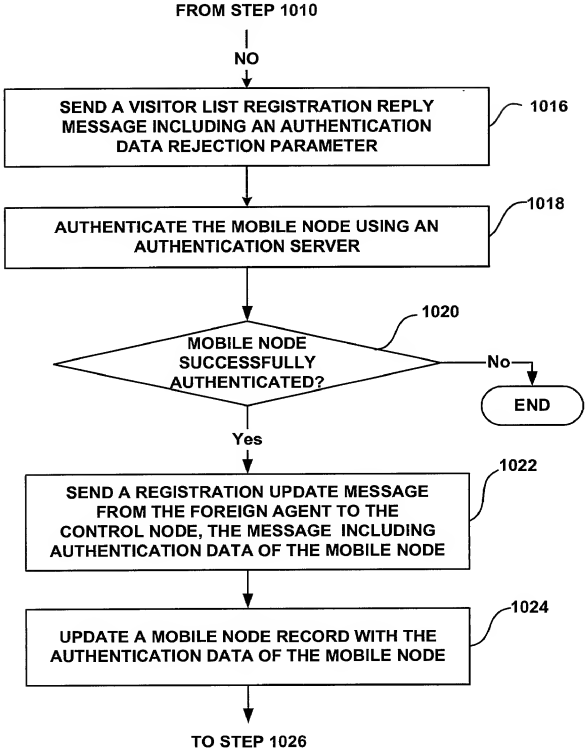
FROM STEP 1010
NO
SEND A VISITOR LIST REGISTRATION REPLY MESSAGE INCLUDING AN AUTHENTICATION DATA REJECTION PARAMETER
1016
AUTHENTICATE THE MOBILE NODE USING AN AUTHENTICATION SERVER
1018
MOBILE NODE SUCCESSFULLY AUTHENTICATED?
1020
No
END
Yes
SEND A REGISTRATION UPDATE MESSAGE FROM THE FOREIGN AGENT TO THE CONTROL NODE, THE MESSAGE INCLUDING AUTHENTICATION DATA OF THE MOBILE NODE
1022
UPDATE A MOBILE NODE RECORD WITH THE AUTHENTICATION DATA OF THE MOBILE NODE
1024
TO STEP 1026

FIGURE 10C

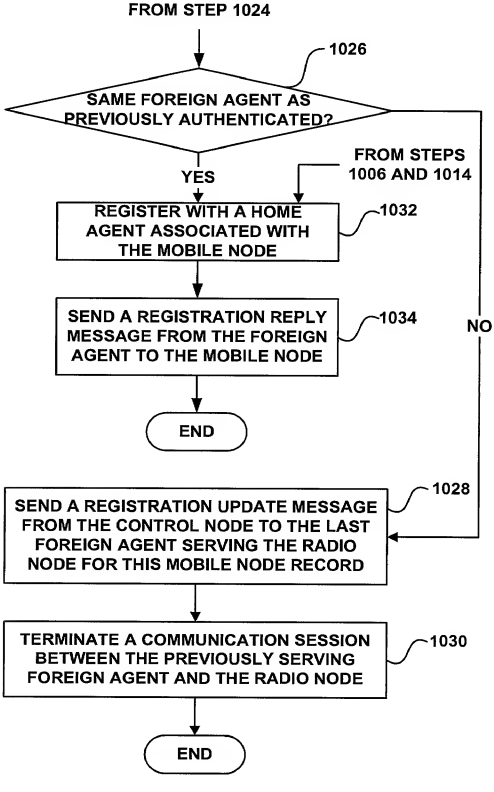

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FIGURE 11

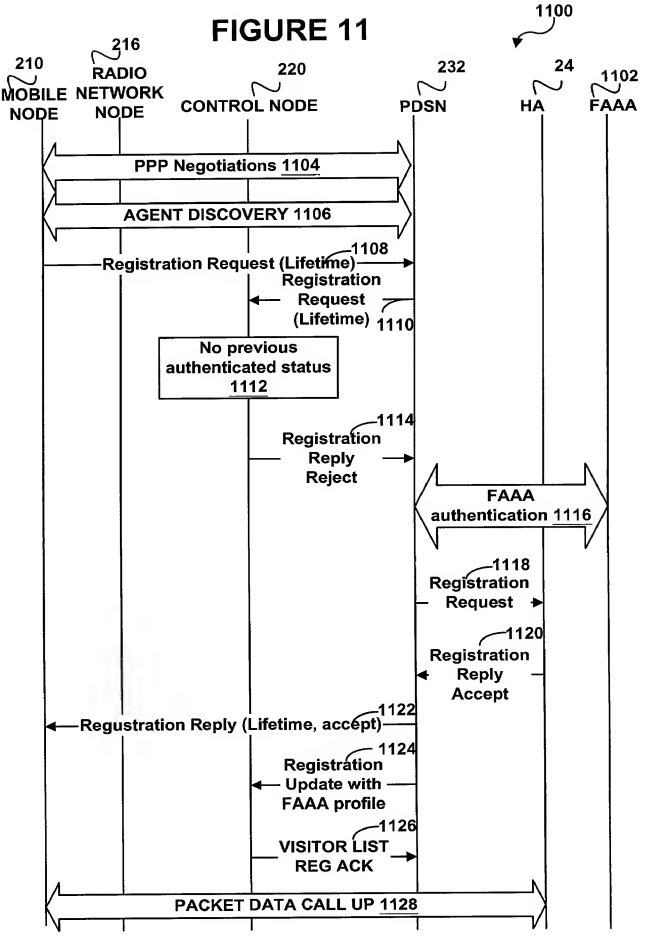

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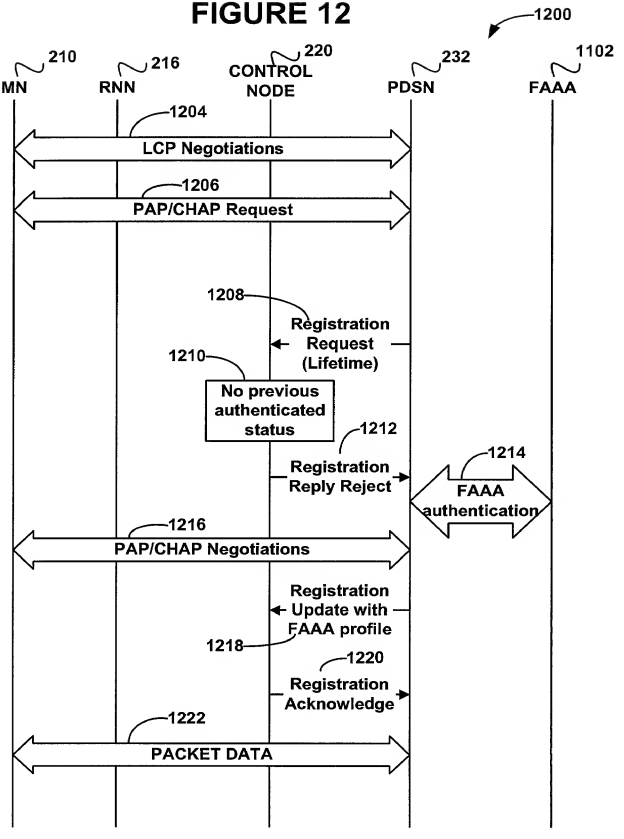
FIGURE 12


1200
210
MN
216
RNN
220
CONTROL NODE
232
PDSN
1102
FAAA
1204
LCP Negotiations
1206
PAP/CHAP Request
1208
Registration Request (Lifetime)
1210
No previous authenticated status
1212
Registration Reply Reject
1214
FAAA authentication
1216
PAP/CHAP Negotiations
Registration Update with FAAA profile
1218
1220
Registration Acknowledge
1222
PACKET DATA

FOR 90' GAST8860

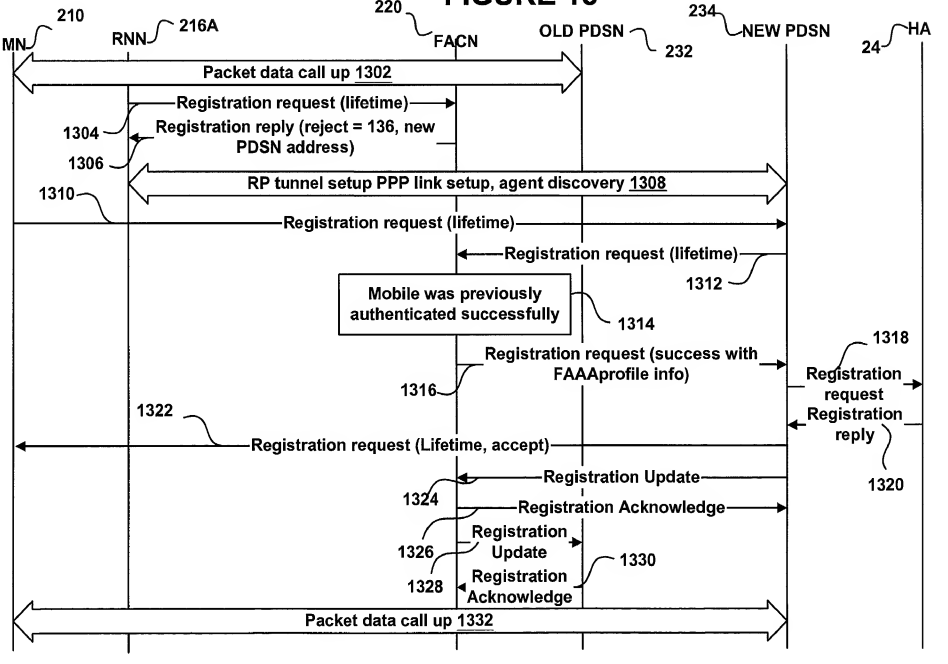



FIGURE 13